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THE OCCURRENCE OF TADPOLES OF THE GREEN TREEFROG, *Hyla cinerea cinerea* (SCHNEIDER), IN TRINITY BAY, TEXAS

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The observations reported herein were obtained incidentally to fishery investigations being conducted in Trinity Bay by the Bureau of Commercial Fisheries, U.S. Department of the Interior.

Trinity Bay, the north-eastern arm of the Galveston Bay estuarine system, covers about 96 square miles within the boundaries of Chambers County and is located about 40 miles east of Houston, Texas, U.S.A. Marshlands border the bay on the northern and eastern margins, but those on the eastern side are separated from the bay proper by spoil banks which are the result of the dredging of a navigation channel paralleling the shore. Bluffs 20 feet in height form the western boundaries of the bay. The bay receives fresh water from the Trinity River and from a number of small streams and bayous which are strongly influenced by tidal currents, Salinity has been observed to range from 0.0‰† at the head of the bay near Trinity River to over 20‰ along the southern limits connecting with Galveston Bay. The water temperature has been observed to range from 1.0°C. during the winter months to over 29°C. in late summer. Turbidity is generally greatest in the eastern half of the bay.

Perhaps the most beautiful of all our treefrogs is the green treefrog, *Hyla cinerea cinerea* (Schneider). Adults can be found throughout the spring and summer in the moist woods and swamps, fresh or slightly saline (salinity up to 1.6‰), of south-eastern Texas where they abound.

The occurrence of adults in brackish water habitats is well documented in the literature. Noble and Hassler (1936) found large choruses of this frog on sandy flats in the vicinity of Cove Point and Solomon's Island in Chesapeake Bay, Maryland, where the water was, in all probability, brackish. Dunn (1937) discusses a weakly differentiated population (*H. c. evittata*) which is largely confined to the area of the upper tidewater Potomac River in Virginia. Carr (1940) lists this species as being "occasional" in the Florida mangrove swamps. Burger, Smith, and Smith (1949) found this species about shallow pools of the coastal marshes near Sabine Pass, Texas. Peterson, Garrett, and Lantz (1952) found *H. cinerea* in brackish waters of the Florida Keys. Hardy (1953) found *H. cinerea* near Chesapeake Bay in Maryland, in breeding pools subject to saft spray and with salinity averaging 15‰. Neill (1958) records *H. cinerea* as inhabiting the salt marsh at Merritt Island, Florida, and breeding in large numbers on the causeway across Mobile Bay, Alabama, on a supertidal flat.

On February 1st, 1961, three tadpoles of *H. cinerea* were captured in a 16-foot otter trawl by Anthony Inglis and Charles H. Koski. Two of the tadpoles, both 42 mm. long, were taken near Amerada Oil Well No. 1 in open waters 9 feet deep with a salinity of 0.1‰ and a temperature of 7.4°C. The Amerada Oil Well, situated within State of Texas Tract No. 66 in the couth central portion of the bay, is located about 4.4 miles southeast of dry land (Umbrella Point) and 6.5 miles west of the nearest appre-

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† Salinity in parts per thousand is represented by the symbol ‰.

ciable source of fresh water, Double Bayou. The third tadpole, 43 mm. long, was taken near Tidewater Oil Well No. 1 in open waters 10 feet deep with a salinity of 8.3‰ and a temperature of 8.1°C. The Tidewater Oil Well, situated within State of Texas Tract No. 113, is located along the southern limits of the bay equidistant (5.2 miles) between Houston Point to the north-west and Smith Point to the south-east, and lies about 10.1 miles south-west of Double Bayou. During collections, the water was rough and turbidity high at both locations.

The colouration of the head and body of the tadpoles in preservative is dark brown, but becomes pale grey on the ventral surface. The lateral surfaces of the tail are pale brown in colour. Paired pelvic limb buds about 1 mm. long are visible on the three specimens.

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